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IN THE

Supreme Court of the United States

October Term, 1982

DOLLAR ELECTRIC COMPANY,
Petitioner,
v.
SYNDEVCO, INC., and
FORD MOTOR COMPANY,
Respondents.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

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QUESTIONS PRESENTED

1. Is there a special, more strict, non-statutory test for determining the validity of patents for so-called "combination" inventions as is the rule in the Fifth, Sixth and Eighth circuits, or, does the test set forth in 35 USC 103 of obviousness or non-obviousness apply to patents for all inventions, whatever their type, as is the rule in the Third and Seventh circuits, and at least one panel of the Ninth circuit?

2. Does the novel "law of the case" theory pronounced by the Court of Appeals by which the Court found appealed claims invalid through an invidious comparison of non-appealed claims found invalid by the District Court constitute an impermissable conflict with the express language of the second sentence of 35 USC 282 that "each claim of a patent . . . shall be presumed valid independently of the validity of other claims . . ."?

3. Does the last sentence of 35 USC 282 permit a district court to fashion a hypothetical combination of prior art to support a finding of invalidity in the court's post-trial deliberations where *no* evidence was submitted during trial as to the hypothetical combination relied upon by the court?

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OPINIONS BELOW

The opinion of the District Court of September 10, 1979 is reported at 205 USPQ 949 (E.D. Mich. 1979) and appears as Petitioner's Appendix A. The opinion of the Court of Appeals of February 12, 1982 is reported at 669 F.2d 1370, and appears as Petitioner's Appendix B. The Court of Appeals' decision of April 20, 1982 denying rehearing appears as Petitioner's Appendix C.

JURISDICTION

The Judgment of the United States Court of Appeals of the Sixth Circuit was entered on February 12, 1982; Petitioner's subsequent petition for rehearing or rehearing en banc was denied on April 20, 1982. Justice O'Connor granted an extension of time to file this Petition to and including August 18, 1982.

The jurisdiction of this Court is invoked under 28 USC § 1254(1).

CONSTITUTIONAL PROVISIONS AND STATUTES INVOLVED

Article 1, Section 8, Clause 8 of the Constitution, and 35 USC §§ 103 and 282 are involved, and are reproduced in pertinent part below:

> Art. 1, Sec. 8. The Congress shall have power . . . To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.

> 35 USC § 103. Conditions for patentability; non-obvious subject matter

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

§ 282. Presumption of validity; defenses.

A patent shall be presumed valid. Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.

* * *

In actions involving the validity or infringement of a patent the party asserting invalidity or non-infringement shall give notice in the pleadings or otherwise in writing to the adverse party at least thirty days before the trial, of the country, number, date, and name of the patentee of any patent, the title, date, and page numbers of any publication to be relied upon as anticipation of that patent in suit, or, . . . as showing the state of the art, . . . In the absence of such notice proof of the same matters may not be made at the trial except on such terms as the court requires.

STATEMENT OF THE CASE

This is a patent infringement suit brought in the District Court by petitioner under 28 USC 1338.

At issue in this Petition is a ruling by the District Court that claims 4 and 5 of the Winsand United States Patent 3,281,747 (Pet. App. D-1) (the "Winsand patent") are invalid for failing to produce a "synergistic" result.

The invention of the Winsand patent has had an important impact in the mass production of automobiles. The invention is used throughout the automotive industry and has been adopted as the standard resistance welding transformer at all plants in the Metal Stamping Division of Ford. This alone represents some 20,000 transformers. Ford uses some 50,000 transformers in its manufacturing operations.

Mr. Karl Sarafian, a supervisory engineer specializing in resistance welding at the Fisher Body Division of General Motors Corporation, testified that the Winsand invention was a "major development."

In the mass production of automobiles, resistance welding machines are used in which gangs of resistance welding transformers and associated electrodes are mounted side-by-side to simultaneously form a large number of spot welds. The spacing between the electrodes is important; it determines the number of spot welds that can be formed in a single operation.

Resistance welding machines of pre-World War II vintage (Martin '867 Pet. App. E-1) had transformers so large that they had to be located remotely from the welding electrodes in order to position adjacent pairs of the electrodes close together.

After World War II, the industry began to convert mass production welding machines to a development known as "package" transformers. Package transformers are small transformers of the type that can be installed side-by-side on a welding machine and can be individually removed and installed for repair and replacement, providing greater flexibility in the design and operation of mass production welding machines.

Much of the development of package type resistance welding transformers during the 1950's and early 1960's

was done at Kirkhof Manufacturing Company, the world's largest manufacturer of resistance welding transformers.

One of the problems in the resistance welding art since the development of package transformers is the necessity to provide some means to adjust the output voltage of the transformer to accommodate different thicknesses and/or different materials of the parts to be welded together. This is done by applying the power source across different pairs of taps. The input voltage is supplied to the transformer through a detachable primary disconnect plug. All through the 1950's and early 1960's, package transformers were equipped with a rotary tap switch for switching the power supplied to the transformer primary from one pair of taps to another, Girton '431 and '838 (Pet. App. F-1, J-1)

A package transformer disclosed in Girton U.S. Patent 3,204,431 (Girton '431, Pet. App. F-1) developed at Kirkhof had become the standard resistance welding transformer in the automotive industry at the time the invention of the Winsand patent was made.

In the late 1950's, the automobile industry began to use galvanized steel in automobile bodies, which required a higher amount of energy in order to form a proper weld. An attempt was made at Kirkhof to solve this problem by reducing the size of the transformer to permit it to be moved closer to the electrodes, and thereby reduce energy losses. This attempt resulted in United States Patent No. 2, 929,915 (Pet. App. G-1) to Taylor, et al. This invention was never put into production because it did not have any means for adjusting the secondary voltage.

There were three outstanding problems with the Girton '431 transformer. During operation, all of the transformers of a welding machine equipped with Girton

'431 transformers must have their tap switches properly set by authorized, skilled personnel, only. It is easy for an unskilled workman to change the tap setting, without authorization, simply by rotating the tap switch level from one position to another. Improper and unsafe welds result from an incorrect tap setting.

Another problem is that the mechanical construction of the rotary tap switch of Girton '431 required a minimum amount of space, which places a limitation on the minimum size of the transformer. This, in turn, limits the minimum spacing between the electrodes of adjacent pairs of transformers. There was a need to decrease the spacing between the transformers so that a greater amount of spot welds per unit length could be formed with a single operation.

Condensation occurs within the tap switch housing. Girton '431 has a complex tap switch mechanism which provides paths for short circuits aggravated by the accumulation of moisture and other contaminants.

In 1960, the Fisher Body Division of General Motors Corporation requested Kirkhof to determine if a transformer could be designed in which the primary disconnect plug could also serve as the tap switch. Skepticism was indicated by Mr. Emaus, the manager of the transformer division of Kirkhof, in a letter of December 28, 1960:

> ". . . Also, recently with the requirement of a new tap switch, the idea of incorporating a plug-in tap change switch was advanced, we are going to make sketches of this idea to see if it is feasible . . . Since this is in an idea stage, we cannot make a prediction as to its ever becoming a reality, and certainly if it did we do not

know how long before it could become a standard production item."

Work on this project was conducted at Kirkhof between December 28, 1960 and September, 1962.

Mr. Emaus made a sketch (DX HH) of his recollection of the construction of a plexiglass model. This model was never tested; it could not be because it could not have electrical power applied to it. It was different from later versions designed by Kirkhof.

Mr. Roth, an engineer at Kirkhof, was instructed by Mr. Emaus to design a transformer having a combined plug and tap switch. A drawing (DX X) was completed on July 30, 1962. Detailed drawings were completed in September, 1962. The project was then shelved — the design was not satisfactory to Fisher Body.

In early 1962, Fisher Body requested Dollar Electric to design a narrow transformer, one 4½ inches wide. Mr. Winsand began work on this project in April, 1962. He completed a 4½ inch wide transformer sometime in the Spring of 1962. This transformer had limited utility because it, too, did not have any means for adjusting the secondary voltage.

Mr. Winsand attempted to equip the narrow transformer with a tap switch. None of the available tap switches, including those used in Girton '431 transformers, were acceptable. They could not function within the 4½ inch wide space. There was insufficient space for the tap switch and primary disconnect plug in side-by-side relationship.

After unsuccessfully trying several versions of available tap switches, Mr. Winsand came up with the idea of combining the functions of the primary

disconnect plug and tap switch. This was accomplished by selecting an arrangement of primary tap terminals, and a construction of the primary disconnect plug, that would permit the primary disconnect plug to engage different pairs of the tap terminals and so that the output voltage of the transformer secondary would vary depending upon which pair of tap terminals was engaged by the primary disconnect plug. *All* moving parts of the tap switch of the Girton '431 transformers were eliminated, and the width of the Winsand patented transformer could be reduced to 4½ inches as compared to the 7¼ inch minimum width of the Girton '431 type transformers.

The transformers of the Winsand patent were built and tested by July 9, 1962 and were immediately placed into service at the Marion, Indiana plant of Fisher Body. Respondent Ford promptly began purchasing the Winsand transformers from petitioner for use on its welding machines under the supervision of Mr. John Murphy.

The advantages of the Winsand invention were promptly recognized:

(a) The construction of package type resistance welding transformers were significantly simplified; *all* moving parts of the tap switch were eliminated, including the star wheel, springs, levers and cam followers of Girton '431.

(b) The cost of manufacturing the Winsand patented transformer is substantially less than that of the Girton '431 transformer.

(c) It is impossible to accidentally change the tap setting of the patented transformer as is the case with

Girton '431 where the switch lever can be accidentally moved from one position to another.

(d) The patented transformer could have substantially less width than the prior art transformers making it possible to increase the number of spot welds per unit of length for each welding operation.

(e) The elimination of all moving parts of the tap switch eliminated possible paths for short circuits caused by the possible accumulation of moisture, condensation and possible leakage of other contaminants into the portion of the transformer housing enclosing the switch mechanism.

(f) The cover plate is secured to the plug in such a way that it overlies and seals the opening in the housing to protect the plug and tap terminals in any of the operable positions of the plug.

For ten years, Ford used the transformers of the Winsand patent at its Metal Stamping Division on machines supervised by Mr. Murphy. Mr. Murphy then designed the accused device which, as found by the district court, is "virtually identical to Winsand" (Petitioner's App. A-34). Ford is replacing *all* of the Girton '431 transformers with the Murphy version of the invention of the Winsand patent; the invention has been adopted as the standard resistance welding transformer at the Metal Stamping Division of Ford. Ford uses *fifty-thousand* resistance welding transformers in its manufacturing operations.

During pre-trial discovery, respondents cited 39 patents under the notice provisions of 35 USC 282 — *not* including Girton '431 — as an attack on the validity of the Winsand patent. In the Joint Pre-Trial Order

filed in the District Court, respondents culled the list of 39 patents to 13. This list of 13 also did *not* include Girton '431.

At trial, the attack on validity by respondents was based primarily on Cage '492 (Pet. App. H-1) and an Italian Patent No. 315,072 to Bauer for a camera (and its corresponding German Utility Model Patent No. 1,303,494 Pet. App. I-1).

In its opinion, the District Court struck down the attacks on the validity of claims 4 and 5 of the Winsand patent by respondents at trial. Nevertheless, without hearing or evidence, in its post-trial considerations, the District Court, sua sponte, fashioned a hypothetical combination of Girton '431 and Bauer, and ruled claims 4 and 5 of the Winsand patent to be invalid in view of this combination (Petitioner's App. 34):

> "In arriving at this conclusion, I have reviewed claims 4 and 5 as 'combination patents.' . . . The test for such patents is that they must produce a synergistic result; they must somehow exceed the sum of their parts . . ."

No evidence was presented during the pre-trial proceedings, or at the trial, of invalidity based on Girton '431.

No evidence was presented during the pre-trial proceedings, or at the trial, of invalidity based on a hypothetical combination of Girton '431 and Bauer.

The hypothetical combination of Girton '431 and Bauer *surfaced for the first time in the District Court opinion.* Under the aegis of "synergism," the notice provisions of § 282 were circumvented; the District Court took upon itself the burden of establishing invalidity under the third sentence of § 282 after ruling that respondents had failed to meet that burden.

The district court also found claims 4 and 5 to be infringed by the accused device, and found that claims 1-3 of the Winsand patent were invalid.

Petitioner appealed from the District Court's ruling on invalidity of claims 4 and 5 — but not claims 1-3. In a nine page opinion (Petitioner's App. B), including a concurring opinion of Circuit Judge Engle, the Court of Appeals concluded "In our opinion, the findings of fact adopted by the district court are supported by substantial evidence and its conclusions of law are correct."

Additionally, the Court of Appeals held that "Since Dollar did not appeal from the judgment of the district court holding that [sic] claims 1, 2 and 3 to be invalid, that part of the judgment has now become final and is the law of the case." The majority of the Court of Appeals then made an invidious comparison of claims 4 and 5 with non-appealed claims 1, 2 and 3 which drew the concurring opinion of Circuit Judge Engle: "I would avoid the suggestion in the majority decision that the trial judge's rejection of claim 2, not appealed from here, is the law of the case' and for this reason commands a similar result for claim 4 [because of the second sentence of 35 USC § 282] . . ." The Court of Appeals also implicitly refused to follow its pre-*Sakraida* decisions in *Tee-Pak v. St. Regis Paper Co.*, 491 F.2d 1193 (6th Cir. 1974); *Tapco Products Co. v. Van Mark Products Corp.*, 446 F.2d 420 (6th Cir. 1971) and *Buzzelli v. Minnesota Mining & Mfg. Co.*, 480 F.2d 541 (6th Cir. 1973).

In *Tee-Pak*, the District Court was reversed for, after hearing argument on a motion for summary judgment, interjecting ". . . his personal opinion to resolve such issues [patent validity]" 491 F.2d at 1201.

In the case at bar, the hypothetical combination of Girton '431 and Bauer came solely from the mind of the District Judge in his post trial deliberations, and Dollar *never* had an opportunity to present a contrary argument.

In *Buzzelli*, the District Court was reversed for granting a motion for summary judgment on invalidity, on the grounds that the invention was "obvious" to the district judge. The Sixth Circuit stated, 480 F.2d at 542, 543:

> "The determination of this issue [obviousness] calls for a *factual inquiry regarding the experience of those skilled in the art* . . .
>
> Under § 103 a patent may not issue where the subject matter would have been obvious at the time the invention was made to one having ordinary skill in the art. While this test is far from precise, we hold that the district court erred in finding invalidity on the theory that if a development is obvious to the court, it must be obvious to a person having ordinary skill in the art . . . (emphasis added)."

In the case at bar, the hypothetical combination of Girton '431 and Bauer was obvious *only* to the District Judge. It escaped the witnesses, expert and non-expert, and the lawyers from Ford and Syndevco. There was *no* factual inquiry.

In *Tapco*, the District Court ruled the patent in suit invalid based on a demonstration by counsel for the defendant in rebuttal to the testimony of plaintiff's expert, 318 F. Supp. 79 (E.D. Mich. 1970). The Sixth Circuit reversed, 446 F.2d at 428, 429:

> ". . . the demonstration by opposing counsel more properly should have been made as a part of the

> cross-examination . . . or least it could have been supported by sworn testimony of witnesses with the right of plaintiff to cross examine. The unsworn, self-serving statements of counsel are not evidence."

Unlike the District Judge in the case at bar, each of the judges in *Tee-Pak, Tapco* and *Buzzelli* made their decisions *after* the patentees had notice *prior to or during trial* of the specific grounds on which validity of the respective patents were to be attacked, and were at least permitted to submit arguments. Even so, this was not sufficient to satisfy the fairness requirements underlying the notice provisions of 35 USC 282. The Sixth Circuit reversed all three.

Prior to the case at bar, the minimum notice standard in the Sixth Circuit is stated in *Shatterproof Glass Corp. v. Guardian Glass Co.*, 462 F.2d 1115, 1121 (6th Cir. 1972):

> . . . The right to this notice may be waived, . . . The mere breach of Sec. 282 does not necessarily require reversal. Absent the required notice, the trial court may still allow proof of the prior art *where fairness is not sacrificed*, . . . (emphasis aded).

This standard was not met in the case at bar because the hypothetical combination of Girton '431 and Bauer was an afterthought of the District Judge that surfaced *for the first time in his decision*. No proof was offered. No argument was made. *All* fairness was sacrificed.

The Court of Appeals' decision in the case at bar cannot be squared with its pre-*Sakraida, Tee-Pak, Tapco, Buzzelli, and Shatterproof Glass* decisions. Implicitly, courts can circumvent the requirements of § 282 if, under the aegis of "synergism" there is a conclusory finding that the invention fails to produce a "synergistic result."

The last sentence of § 282 explicitly requires proof *at trial*. "In the absence of such notice proof of the same matters *may not be made at trial* . . ." Since *no* proof was offered *at trial* of a hypothetical combination of Girton '431 and Bauer, it is absurd to suggest that the minimum fairness requirement of § 282 has been met.

REASONS FOR GRANTING THE WRIT

I.

THE "SYNERGISTIC" TEST IS CONTRARY TO THE *GRAHAM V. DEERE* ANALYSIS OF § 103, NEGATES THE CONGRESSIONAL INTENT IN ENACTING § 103, AND IS INHERENTLY SUBJECTIVE BECAUSE IT CAN ONLY BE APPLIED IN CONCLUSORY STATEMENTS; IT HAS BEEN REJECTED IN SOME CITCUITS, REQUIRED IN OTHERS, AND IS INEXPLICABLE IN ALL.

There is chaos in patent law resulting from this Court's decisions in *Anderson's-Black Rock, Inc. v. Pavement Salvage Company*, 396 U.S. 57 (1969), coupled with *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273 (1976).

These decisions reached back in time, prior to the 1952 Patent Act, and resurrected the special, non-statutory test for so-called "combination" patents of *Great A & P Tea Co. v. Supermarket Equipment Corp.*, 347 U.S. 147 (1950). Under the *A & P* test, patents to "combinations" must be "closely scrutinized" and held to be invalid when "two and two have been added together, and still they make only four," 347 U.S. at 152. As stated in *Sakraida*, there must be a "synergistic" result, "that is, 'result[ing] in an effect greater than the sum of the several effects taken separately,' " 425 U.S. at 282. These decisions nullified the non-obviousness test of 35 USC 103, and the analysis of § 103 in *Graham v. Deere*, 383

U.S. 1 (1966)[1] insofar as "combination" inventions are concerned; "combination" inventions are now subjected to what has become known as the "synergistic" test instead of the statutory "non-obviousness" test in the Fifth, Sixth and Eighth Circuits.

The Third and Seventh circuits, however, have found the synergistic test impossible to reconcile with 35 USC 103 and *Graham v. Deere*, and do not follow it, *Rengo Co., Ltd. v. Molins Machine Co.*, 657 F.2d 535, 544-546 (3rd Cir. 1981), *Republic Industries v. Schlage Lock Co.*, 592 F.2d 963, 970-71 (7th Cir. 1979):

> "When using the synergism approach to determine whether one element functions differently or whether the whole somehow exceeds the parts, one is required to look solely to the operation of the elements *after* they are combined. This analysis suffers from two defects. First, a test which looks exclusively to the functioning of the individual components after they are combined must necessarily be premised on the assumption that it is always obvious to take known elements and to combine them. . .
>
> The second and more basic defect with synergism is that § 103 sets as the standard of patentability the non-obviousness of the invention 'at the time the

---

[1] "Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or non-obviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject sought to be patented. As indicia of obviousness or non-obviousness, these inquiries may have relevance." 383 U.S. at 17.

> invention was made to a person having ordinary skill in the art. . .' . . .from this vantage point the critical question becomes whether the level of skill in the art was such that the combining of elements in the manner claimed would have been obvious, not in retrospect, but at the time it was done by the inventor. . .Synergism, however, precluded this analysis.
>
> Because synergism centers exclusively on the performance of the elements *after* combination and without regard to the obviousness or non-obviousness of *making the combination* synergism does not comport with the Graham [v. Deere] mandate to apply § 103."

The Ninth circuit is in disarray over the synergistic test. One panel has recently joined the Third and Seventh circuits in rejecting the synergistic test, *Sarkisian v. Winn-Proof Corp.*, published in the advance sheets at 662 F.2d 596, 601-606 (9th Cir. 1981), but withdrawn from publication in the bound volume of 662 F.2d because rehearing en banc has been granted; there is a conflict among different panels within the Ninth circuit over whether the synergistic test should be applied.[2]

At least insofar as the mechanical and electrical arts are concerned, nobody seems to know what constitutes a *non*-combination invention, or how to articulate whether a "combination device" produces a result which is "greater than the sum of its parts," or whether, for determining patentability, the elements "perform a new

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[2] For an excellent discussion of the confusion in the courts over the synergism issue, see "Factors Of Synergism And Level Of Ordinary Skill In The Pertinent Art In Section 103 Determinations" by Judge Jack R. Miller of the CCPA in the APLA Quarterly Journal, Vol. 8, No. 4, 1980.

or different function." As the Ninth Circuit noted in *Sarkisian*, 662 F.2d at 605-607 (advance sheets only):

> "The requirement that a combination device must produce a result which is 'greater than the sum of its parts' is clearly only a figure of speech: an invention cannot be truly greater than the sum of its parts without creating something out of nothing, which would violate the laws of nature as we know them. . .
>
> * * *
>
> Lastly, it is sometimes said that the elements of the combination produce a 'synergistic' result if they perform a new or different function in the device in question . . . However, sameness or difference of function cannot be a sufficient condition of either the obviousness or the non-obviousness of combination devices, because the elements in combination devices almost always perform functions which in some sense are the same as and in some sense are different from the roles they played in the prior art.
>
> . . . On the most general level of description, for example, the elements in a combination device will play the 'same' role in the invention as they play in every other mechanical device of which they are a part: as Judge Learned Hand once noted, 'all machines are made up of the same elements: rods, pawls, pitmans, journals, toggles, gears, cams and the like, all acting their parts as they always do and always must.' Even when we narrow our focus to the specific role played by the elements in question in the prior pertinent art, it is almost inevitable that the elements under scrutiny will play 'the same' role in the new invention as they played in the device of prior art: by definition the elements composing the new

'combination' invention are already found in and are taken from the prior art. Finally, it is almost inevitable that the elements of the invention will play 'a new and different role' in the new invention than they played in the prior art, because the 'function' of any element can reasonably be described in terms of the role that element plays in achieving the new result brought about by the invention.

. . . Thus, depending on how one chooses to describe the role of the [elements], they play both 'the same function' and a 'new and different function' from those in prior art devices.

Any combination invention which introduces some feature of novelty — in its results, in its manner of operation, or in any other significant way — will utilize elements which can be described as performing a 'new or different function.' The element's 'function' need only be described in terms of its role in contributing to the invention's novelty to achieve that result. At the same time, it will almost always be the case that these elements play the 'same' role in the invention as they played in the prior art from which they are, by definition, taken. It cannot be, therefore, that a combination invention is non-obvious whenever its elements perform a 'new and different function'; nor is it true that 'sameness' of function is by itself a definitive indication of obviousness. . ."

II

THE CAPRICIOUSNESS OF THE SYNERGISTIC TEST IS STRIKINGLY DEMONSTRATED BY THE CASE AT BAR. EXCEPT FOR RESULTS, THERE WAS NO CONSISTENCY IN THE ANALYSIS BY RESPONDENTS, THE DISTRICT COURT AND COURT OF APPEALS

Nothing could better demonstrate the capriciousness of the synergistic test than the findings made in the District Court opinion in the case at bar.

The District Court found:

1. That "In 1960, William Emaus (of Kirkhof Manufacturing Company, the world's largest manufacturer of resistance welding transformers) . . . hit upon the notion that the disconnect plug used by Girton '431 might be modified to perform the function of the tap switch . . . although this may have been suggested by Karl Sarafian. The virtues of such an arrangement were explained by Sarafian to be the elimination of the moving parts from the tap switch mechanism and an increased reliability that would result." (Petitioner's App. A-16, 17).

2. That "development of the idea seems to have lapsed entirely until early 1962 when Emaus said a prototype [actually a plexiglass model] of the HH device was built." (Petitioner's App. A-17).

3. That a drawing (the "X" project) was begun in the Spring of 1962 and completed on July 30, 1962. After its completion, a series of detailed drawings were completed in September, 1962, and the X project was then shelved; it was never tested or put into production (Petitioner's App. A-18).

4. That in March or April of 1962, a Fisher Body Production Engineer requested of Mr. Winsand that Dollar try to develop a narrow transformer that could produce several output voltages (Petitioner's App. A-19).

5. That "A narrow transformer was made easily [by Winsand]. The variable output feature proved more troublesome due to the unavailability of narrow tap switches." (Petitioner's App. A-19)

6. That Winsand "fashioned a prototype of the device described in claim 5 of [the Winsand patent] . . . before June 18 when Winsand made a drawing, PTX 26, showing the device in detail." (Petitioner's App. A-19).

7. That in July, 1962 the Winsand device had been tested, and "very soon thereafter several were sold and shipped to Fisher Body's Marion, Indiana facility. Ford was buying it within a few months." (Petitioner's App. A-20).

8. That the project that had been shelved in September, 1962 at Kirkhof reasserted itself early in 1963, and a drawing, DX AA, was completed on February 25. (Petitioner's App. A-19).

9. That "The AA device [of Kirkhof] was first produced in prototype form and shortly thereafter a number of production transformers incorporating it were sold to Fisher Body." This version of Kirkhof "never gained commercial acceptance." (Petitioner's App. A-19).

10. That "In response to the failure of the AA device, Kirkhof rearranged the tap terminals so that the pairs were formed not by bridging two straight lines of

terminals, but by spanning the diameter of a circle. By September [1963], transformers incorporating the round plug-tap switch were sold successfully to Fisher Body [by Kirkhof]." (Petitioner's App. A-19).

11. That the shelving of the X project in the Fall, 1962 constituted an abandonment of the invention by Kirkhof under 35 USC § 102(g). (Petitioner's App. A-22, 23).

12. That "The most pertinent prior art is Girton '431 and the Italian and German patents to Bauer (Pet. App. A-24). This conclusion means that the Patent Office did not cite the most pertinent prior art. The presumption of validity as to the Winsand patent is diminished, though not greatly, because the best prior art is not greatly more pertinent than the cited prior art." (Petitioner's App. A-24); "The similarity between Winsand and Ultrablitz [cited by the Patent Office] is essentially of the same type as between Winsand and Bauer." (Petitioner's App. A-30).

13. That "Plaintiff's proofs that Winsand has been successful stand unrefuted. Ford has adopted as its standard a device virtually identical to Winsand, after previously using Winsand itself for some time. Fisher Body also accepted the device." (Petitioner's App. A-34).

14. That claims 4 and 5 of the Winsand patent are infringed by the accused transformer of Ford (Petitioner's App. A-37).

15. That the prior art patents asserted by Ford and Syndevco are inadequate to support a finding of invalidity of claims 4 and 5. (Petitioner's App. A-31).

These findings would lead inexorably to a conclusion of non-obviousness under the *Graham v. Deere* standard. Instead, however, the District Court concludes that claims 4 and 5 are nevertheless invalid in view of a hypothetical combination of Girton '431 and the German and Italian patents to Bauer, and repeats the conclusory litany of *A & P* and *Sakraida* (Pet. App. 34):

> "In arriving at this conclusion, I have reviewed claims 4 and 5 as 'combination patents' . . . The test for such patents is that they must produce a synergistic result; they must somehow exceed the sum of their parts. A new or surprising result must be present . . . The Winsand device functions just as expected. It produces no new result."
>
> * * *
>
> In sum, the patent in suit simply lacks the 'impalpable something' that constitutes invention."

Under the aegis of the synergistic test, the District Court found invalidity, even though it struck down the attacks on validity made by respondents Ford and Syndevco.

The Court of Appeals affirmed the District Court. But, contrary to the District Court, and the record, the Court of Appeals found that the Winsand patent was granted without the citation of "any relevant prior art" indicating the failure of the Court of Appeals to perceive that Girton '838 (Pet. App. B) was in fact considered and cited by the Patent Office.

Petitioner has pointed out repeatedly in the post-trial proceedings below that the Winsand transformer accomplished with seven parts what the District Court found can somehow be accomplished with a com-

bination of over seventeen Girton '431 parts and twelve Bauer parts.

Unlike Bauer and Girton '431, the transformer of the Winsand patent has *no* moving parts.

In Winsand, there are five tap terminals which cooperate with the plug and cover plate — a total of seven parts — to determine the output voltage of the transformer.

Conservatively, seventeen parts perform the same function in Girton '431.

The function of selecting input voltages in Bauer is carried out by a total of twelve parts. And Bauer discloses no elements for changing output voltage. Bauer intends that the output voltage be constant.

Assuming, arguendo, that Winsand functions no better than Girton '431, and that Bauer can be modified to function as Girton '431 and Winsand, Winsand has eliminated all moving parts, and has reduced the number of parts with respect to each of Girton '431 and Bauer.

Mr. Dilay, Ford's expert, conceded that the Bauer transformer is not suitable for resistance welding, even if modified to have a variable output voltage.

The desirability of eliminating the numerous parts of the Girton '431 tap switch mechanism is not contested. The need to do this was recognized by Mr. Sarafian and Mr. Emaus at the outset of the Kirkhof project. Obviously, the need has been recognized by Ford.

To the extent that any invention can be said to "exceed the sum of its parts," Winsand, in accomplishing with seven parts what Bauer (modified) does with twelve and

Girton '431 does with seventeen "exceeds the sum of its parts."

Throughout the proceedings below, neither the District Court, respondents, nor the Court of Appeals have seen fit or been able to respond to this analysis, and have not attempted to point out what is meant by the requirement that the invention "exceeds the sum of its parts."

III.

THE BURDEN ON THE FEDERAL COURTS, LITIGANTS, AND THE PUBLIC RESULTING FROM THE DISARRAY CAUSED BY THE CONFLICTS OVER THE "SYNERGISTIC" TEST MAKES THIS AN ISSUE OF PARAMOUNT PUBLIC IMPORTANCE REQUIRING RESOLUTION BY THIS COURT

The confusion and conflicts in the courts brought about by the synergistic test has substantially increased the costs of patent litigation — litigation that was complex enough prior to *Sakraida*. In *Blonder-Tongue Lab. Inc. v. University Of Illinois Foundation*, 402 U.S. 313, 334 (1971), this Court made note of "the acknowledged fact that patent litigation is a very costly process." The synergism controversy adds to the complexity of every stage of patent litigation. Almost every case involves pre-trial discovery as to whether an invention is a "combination" so as to be subjected to the synergistic test of *Sakraida* as opposed to the obviousness test of 35 USC 103 and *Graham v. Deere*. Inventions are dissected into their basic elements so that the accused infringer can triumphantly point out that each of the elements is previously known outside the combination. The parties then enter into a costly and time consuming

intellectual exercise, having little, if anything, to do with the merits of the invention under consideration, as to whether the combination exceeds "the sum of their parts," and has that "impalpable something," and whether "two and two have been added together, and still they make only four." It was thought that the enactment of 35 USC § 103 in 1952 laid the *A & P* test to rest. The synergistic test is non-statutory and non-workable. It has imposed an undue burden on law and commerce. The synergistic test frustrates law and commerce in denying even a modicum of certainty as to the outcome of patent litigation. That very uncertainty increases the amount of litigation — the subjective nature of the synergistic test encourages accused infringers to roll the dice, regardless of the merits of an invention, on the odds that a federal judge can be persuaded that the invention is to a "combination" and "even though a good idea" (Petitioner's App. A-36) strike down the patent with the conclusory litany of no "synergistic" result — two plus two does not equal more than four; ergo, the patent is invalid

There is a clear conflict among the regional Courts of Appeals. There are even conflicts among different panels of the same Court of Appeals as witnessed by the *Sarkisian* case in the Ninth Circuit.

The regional Courts of Appeals have numerous patent cases in their dockets. The new Court of Appeals for the federal circuit (CAFC) will come into being October 1, 1982 with appellate jurisdiction over most patent cases. The conflicts and confusion over the synergism issue cries out for resolution by this Court.

The Winsand invention is deserving of analysis on the merits under the *Graham v. Deere* test — not the capricious "synergistic" test. The conclusory, non-

analytical finding of invalidity of the Winsand patent will produce a chilling effect on innovation among suppliers to the U.S. automotive industry.

The non-statutory synergistic test frustrates the underlying policy of the patent system, enthusiastically endorsed by statesmen such as Abraham Lincoln: "The patent system . . . added the fuel of interest to the fire of genius." The synergistic test places a capricious burden on the patent system not intended by Congress when it enacted the 1952 Patent Act under the Constitutional mandate of Article I, § 8.

CONCLUSION

As strikingly demonstrated by the case at bar, industry and commerce cannot seek guidance from the patent laws as written by congress so long as the synergistic test is extant. Not only was § 103 circumvented by the courts below, petitioner was not able to rely upon the plain language of § 282.

The Sixth Circuit's synergistic test is stated as follows in *American Seating Co. v. National Seating Co.*, 586 F.2d 611, 620-621 (6th Cir. 1978):

> "In Kearney & Trecker Corp. v. Cincinnati Milicron, Inc., supra, 562 F.2d at 370, this Court, speaking through Circuit Judge Lively, recently defined synergism as follows:
>
> > The synergistic test is met when a combination of elements produces an effect which is 'greater than the sum of the several effects taken separately.'. . . There must be an 'impalpable something' in the combination itself which consists of previously known elements. . ."

No human being can apply the "synergistic" test with any coherence or consistency. It is inherently whimsical. It is non-statutory; as such it conflicts with the language of recent decisions of this Court, *Diamond v. Diehr*, 450 U.S. 175; 101 S.Ct. 1048, 1054 (1981):

> "In cases of statutory construction, we begin with the language of the statute. Unless otherwise defined, 'words will be interpreted as taking their ordinary, contemporary, common meaning' [citation omitted] and, in dealing with the patent laws, we have more than once cautioned that 'courts *"should not read into the patent laws limitations and conditions which a legislature has not expressed."* (emphasis added)

For the reasons set forth above, a Writ of Certiorari should be issued to review the judgment of the United States Court of Appeals for the Sixth Circuit.

Respectfully submitted,

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